

ABSTRACT

In a translinear amplifier, where the output voltage difference is kept at the same relative difference as the input voltage difference and which is normally formed by two current balancing circuits and some form of an amplifier stage, said amplifier stage is drastically simplified and even replaced by a simple diode. Two additional functions sharply limit the analog operating region: an added current limiting transistor on one side and the purposely use of the voltage limited by the power supply on the other side. One key objective is linearly switching on or off a transistor, and getting sharp maxima and minima of its R_{DSon} at the extreme ends.